

**AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions and listings of claims in the application:

1.-7. (Canceled)

8. (Currently Amended) A method of inhibiting angiogenesis or arteriogenesis in a patient in need thereof comprising administering active purified β isoform of antithrombin III to said patient.

9. (Canceled)

10. (Previously Presented) The method as claimed in claim 8, wherein the patient is suffering from retinopathy, neuropathy, or infectious disease.

11. (Previously Presented) The method as claimed in claim 8, wherein the patient is suffering from cancer.

12. (Previously Presented) The method as claimed in claim 11, wherein the cancer is cancerous ulcer or metastasis of cancerous ulcer.

13. (Previously Presented) The method as claimed in claim 8, wherein the patient is suffering from rheumatoid arthritis, psoriasis, endometriosis, chronic bronchitis, or chronic inflammation of the gastrointestinal tract.

14. (Currently Amended) The method as claimed in claim 8, wherein the purified  $\beta$  isoform of antithrombin III is prepared recombinantly or transgenically.

15. (Currently Amended) The method as claimed in claim 8, wherein the purified  $\beta$  isoform of antithrombin III is administered intravenously, subcutaneously, intramuscularly or topically.

16. (Previously Presented) The method as claimed in claim 10, wherein the infectious disease is leprosy.

17. (Currently Amended) The method of claim 8, wherein ~~the active~~ the purified  $\beta$  isoform of antithrombin III is free from latent antithrombin III.

18-19. (Canceled)

20. (New) A method of inhibiting angiogenesis or arteriogenesis in a patient in need thereof comprising administering purified  $\alpha$  isoform of antithrombin III to said patient.

21. (New) The method as claimed in claim 20, wherein the patient is suffering from retinopathy, neuropathy, or infectious disease.

22. (New) The method as claimed in claim 21, wherein the infectious disease is leprosy.

23. (New) The method as claimed in claim 20, wherein the patient is suffering from cancer.

24. (New) The method as claimed in claim 23, wherein the cancer is cancerous ulcer or metastasis of cancerous ulcer.

25. (New) The method as claimed in claim 20, wherein the patient is suffering from rheumatoid arthritis, psoriasis, endometriosis, chronic bronchitis, or chronic inflammation of the gastrointestinal tract.

26. (New) The method as claimed in claim 20, wherein the purified  $\alpha$  isoform of antithrombin III is prepared recombinantly or transgenically.

27. (New) The method as claimed in claim 20, wherein the purified  $\alpha$  isoform of antithrombin III is administered intravenously, subcutaneously, intramuscularly or topically.

28. (New) The method of claim 20, wherein the purified  $\alpha$  isoform of antithrombin III is free from latent antithrombin III.

29. (New) A method of inhibiting angiogenesis or arteriogenesis in a patient in need thereof comprising administering a mixture of purified  $\alpha$  isoform and  $\beta$  isoform of antithrombin III to said patient.

30. (New) The method of claim 30, wherein the mixture of purified  $\alpha$  isoform and  $\beta$  isoform of antithrombin III is free from latent antithrombin III.